

Claims

1. A method of coating a substrate, the method including the steps of applying an active coating material to the substrate to form an active coating layer, the active coating material comprising biologically active material, wherein the active coating layer is removable from the substrate.
2. A method according to claim 1, wherein the active coating material is applied electrostatically.
3. A method according to claim 1 or claim 2, wherein the active coating material is applied in the form of a dry powder.
4. A method according to claim 3, wherein at least 90% by weight of the particles of the active coating material have a particle size between from 1 to 200 μm .
5. A method according to any preceding claim, wherein the active coating material further includes one or more excipients.
6. A method according to any preceding claim, wherein the substrate is conveyed through a region adjacent to a source of the active coating material.
7. A method according to claim 6, wherein the method comprises supporting the substrate adjacent to the source of the active coating material with a surface of the substrate maintained at such a different electric potential from that of the active coating material that the application of the electric potential causes the active coating material to move from the source of the active coating material towards the substrate, a surface of the substrate becoming coated with the active coating material.
8. A method according to claim 6 or claim 7, wherein the substrate is supported from above and the powder moves from the source upwards towards a lower surface of the substrate.
9. A method according to any of claims 6 to 8, wherein the substrate is charged when the substrate is adjacent

to the source of the active coating material.

10. A method according to any of claims 6 to 9, wherein the source of active coating material is charged.

11. A method according to any preceding claim, wherein the method further includes the step that after the active coating layer is applied the active coating material is treated to form an active film coating secured to the surface of the substrate.

12. A method according to any preceding claim, wherein the method further includes the step of applying a cover coating layer onto the active coating layer to form a cover coating layer such that the active coating layer is substantially completely covered by the cover coating layer.

15. 13. A method according to claim 12, wherein the cover coating layer is removable from the substrate.

14. A method according to any preceding claim, wherein the active coating material is applied to a part of a surface of the substrate, the active coating layer forming a first active coated region on the surface of the substrate.

20 15. A method according to any preceding claim, wherein the method includes the further step of applying a second active coating layer onto a surface of the substrate, the second active coating layer forming a second active coating region on a surface of the substrate.

25 16. A method according to claim 15, wherein the method further includes the step of applying a second cover coating layer onto the second active coating layer to form a second cover coating layer such that the second active coating layer is substantially completely covered by the second cover coating layer, the second cover coating layer being substantially separate from the first cover coating layer.

30 35. 17. A method of coating a plurality of coating regions onto the surface of a substrate, the method comprising the steps of:

(a) applying active coating material to a surface of the substrate to form a plurality of active coating regions on the surface comprising active coating layers, the active coating material including biologically active

5 material

(b) applying cover coating material to a surface of the substrate to form a plurality of cover coating regions, the cover coating regions forming layers of cover coating material, each active coating region being substantially completely covered by a cover coating

10 region,

such that each region of active coating and cover coating is removable from the surface of the substrate.

15 18. A method according to any preceding claim, the method further including the step of removing the active coating layer from the substrate to form a wafer comprising active material.

19. A method according to claim 18, wherein the wafer is cut to form wafer portions, each wafer portion including

20 substantially a dose of the active material.

20. Apparatus for coating a pharmaceutical substrate according to a method as claimed in any of claims 1 to

25 19. 21. An apparatus for coating a substrate, the apparatus comprising:

(a) a source of active coating material,

(b) support means for supporting a substrate adjacent to the source of the active coating material such that the active coating material forms an active coating layer on the surface of the substrate.

30 22. An apparatus according to claim 21, further comprising:

(c) a source of a cover coating material,

(d) means for conveying the substrate having the active coating layer to a position adjacent to the source of cover coating material such that the cover coating material forms a cover coating layer which substantially

completely covers the active coating layer.

23. An apparatus according to claim 21 or ~~claim 22~~, wherein the substrate comprises a conveyor belt.

24. An apparatus according to any of claims 21 to 23,

5. further including means for applying a charge to the source of active coating material.

25. An apparatus according to any of claims 21 to 24, wherein the apparatus further includes means for applying a charge to the substrate.

10 26. An apparatus according to any of claims 21 to 25, wherein the source is arranged below the substrate.

27. An apparatus for coating a substrate, the apparatus comprising:

(a) a source of active coating material

15 (b) means for moving the substrate relative to the source of coating material,

(c) means for applying an active coating material onto a surface of the substrate to form a plurality of active coating regions

20 (d) means for applying a cover coating material onto the surface of the substrate to form a plurality of cover coating regions such that each active coating region is substantially completely covered by a cover coating region,

25 the coating materials being applied such that the active coating material is removable from the surface of the substrate.

28. A coated substrate comprising an active coating layer on a surface of the substrate, the active coating

30 layer including biologically active material and in which the active coating layer is removable from the surface of the coated substrate.

29. A coated substrate according to claim 28, the

substrate further including a cover coating layer on a

35 surface of the substrate, the cover coating layer substantially completely covering the active coating layer in which the cover coating layer is removable from

the surface of the substrate.

30. A coated substrate according to claim 28 or claim 29, wherein the substrate includes a plurality of active coating layers forming active coating regions on a 5 surface of the substrate.

31. A coated substrate according to claim 30, wherein each active coating region includes a cover coating region comprising a layer of cover coating material in which each active coating region is substantially 10 completely covered by a cover coating region.

32. A coated substrate when made according to a method ^{claim} as claimed in claims 1 to 17.

33. An intermediate product for use in producing a plurality of solid dosage forms, the intermediate product 15 comprising a substrate and an active coating layer deposited on the substrate, the amount of active coating material deposited on a given area of the substrate being controlled such that the product can subsequently be divided into portions with each portion containing a 20 predetermined amount of active coating material, each predetermined amount being one dose of the active material.

34. A wafer for administration to a patient, the wafer comprising biologically active material and having a 25 thickness of less than 2mm.

35. A wafer produced by a method according to claim 18 or claim 19.

36. A method of coating a substrate, the method comprising applying an active coating material to a 30 surface of the substrate to form an active coating layer, the active coating material comprising biologically active material, applying a cover coating layer over the exposed surfaces of the active coating layer and dividing the layered product to form layered portions, each 35 layered portion including substantially one dose of the active material.

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